

CHAPTER 1

Renewable Operating Permit Program Overview

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CHAPTER 1: RENEWABLE OPERATING PERMIT (ROP) PROGRAM OVERVIEW

BACKGROUND

The Renewable Operating Permit (ROP) Program was developed in response to changes that Congress made to the federal Clean Air Act in 1990. Title V of the Clean Air Act Amendments of 1990 requires each state to develop an ROP Program for all major sources of air contaminants. Federal rules provide guidance to the states on establishing Title V programs. At the state level, the requirements of the ROP Program are incorporated into Part 2 of Michigan's Air Pollution Control Rules and are administered by the Michigan Department of Environmental Quality (DEQ), Air Quality Division (AQD). The ROP application forms were developed in accordance with the Michigan Part 2 Rules and Title 40, Part 70 of the Code of Federal Regulations (CFR).

The ROP Program is intended to simplify and clarify a subject facility's applicable requirements and compliance with them by consolidating all state and federal air quality requirements into one document. Thus, all of your Permits to Install and any other applicable air pollution control requirements will be incorporated into one permit. An ROP does not add any new requirements; however, many facilities may have to establish new monitoring systems to demonstrate compliance with emission limits and material usage limits. Once a source receives its ROP, the burden of proof is shifted from the regulatory agency to the source. It becomes the source's responsibility to determine whether a violation has occurred and report the findings. Therefore, your facility must track its compliance with state and federal air quality requirements and make reports to the regulatory agencies.

The rules cited in this document are derived from the Michigan Air Pollution Control Rules, R 336.1101 through R 336.2706 of the Michigan Administrative Code (MAC). It is important to note that the citations provided (e.g., Rule 210, Rule 212, etc.) are abbreviated versions of the rule numbers as they appear in the MAC. For example, Rule 210 and Rule 212 will appear in the MAC and Air Pollution Control Rules as R 336.1210 and R 336.1212. For more information about regulatory citations and how to obtain laws and rules on the Internet, refer to Appendix C of the *Michigan Manufacturers' Guide to Environmental, Safety and Health Regulations*. To access this document go to: www.michigan.gov/deq (a link to the guidebook is provided under the "Quick Links" area of the page).

WHO IS SUBJECT TO THE ROP PROGRAM?

Rule 211 of the Michigan Air Pollution Control Rules outlines what sources are subject to the ROP Program (see Appendix C for Rule 211). Essentially, all **major sources** of air pollution are subject to the ROP Program (some non-major sources are required to obtain an ROP as well; these sources are identified in Rule 211). The Clean Air Act contains not one, but many definitions of major source. To put it simply, any facility in Michigan that has the potential to emit 10 tons per year of any one hazardous air pollutant (HAP), 25 tons per year of any combination of HAPs, or 100 tons per year of any other regulated air contaminant is considered a major source and is subject to the ROP Program (see Table 1-1).

Table 1-1: ROP Applicability Thresholds

Type of Pollutant	Permitting Threshold	Common Sources of Pollutant
PM-10	100 tons per year	Dusty activities such as grain handling, milling, sand and gravel operations
Volatile Organic Compounds (VOC)	100 tons per year	Solvent cleaning, painting, fuel storage and transfer operations
Carbon Monoxide (CO)	100 tons per year	Fuel combustion
Nitrogen Oxides (NO _x)	100 tons per year	Fuel combustion
Sulfur Dioxide (SO ₂)	100 tons per year	Fuel combustion
Lead (Pb)	10 tons per year	Wave soldering, lead smelting and recycling
<u>Hazardous Air Pollutants (HAP)</u> Any single HAP Any combination of HAPs	10 tons per year 25 tons per year	Solvent cleaning, painting, fuel storage and transfer operations
Any other regulated air contaminant	100 tons per year	

It is important to remember that the ROP requirements are dependent upon a facility's **potential to emit**, not its actual emissions. Potential to emit is the maximum amount of pollutants that the emission units are capable of emitting annually. For guidance on calculating potential to emit and determining whether your facility is a major source, contact the Clean Air Assistance Program (see page 1-13).

BENEFITS OF THE ROP PROGRAM

A facility subject to the ROP Program should not view its permit submittal or renewal as a worthless paperwork exercise. Instead, it should be viewed as a chance to clean-up the requirements identified in existing permits and an opportunity to request that outdated or unfounded conditions be replaced or eliminated. The ROP program gives facilities the opportunity to redefine their processes in order to clarify their requirements and to set emission caps to avoid other regulations. Below is a brief description of these concepts.

- **Redefining Processes and Equivalent Requirements**

The historical approach of regulating emission units as they were installed or modified has led to a piecemeal and sometimes contradictory set of requirements contained in numerous permits. If the ROP Program was based on the approach that all of the conditions in these existing Permits to Install would directly rollover into the ROP, it would be a much simpler program, but it would not resolve the conflicts and uncertainties that now exist. Since a primary goal of the ROP is "consolidation and clarification" of applicable requirements, the AQD allows facilities to propose some changes. Any proposed changes must be equivalent to the requirements that currently apply to the process and must not violate any other requirements. This is not an opportunity to relax an emission limit required by a Permit to Install or a Reasonably Available Control Technology (RACT) rule. Consider the following examples that clarify the issue of redefining process and equivalent requirements.

Example 1:

A facility was issued a Permit to Install in 1982 for a chemical process. The permit includes a VOC limit for the process. In 1985, the facility applied for a second Permit to Install to expand the process by the addition of two new reactors. The second permit includes a separate VOC limit specifically for the new reactors. Since the time that the permits were issued, The AQD has clarified that in this case the emission unit is all of the process devices installed in 1982 and during the modification in 1985. The facility could combine the original process and the two new reactors into a single emission unit in the Renewable Operating Permit. This would result in combining the allowed emissions from each into an equivalent single limit. Table 1-2 summarizes this example.

Table 1-2: Example 1 - Summary of Redefining Processes/Equivalent Requirements

Current vs. Proposed	Permit	VOC Limit	Emission Group
Current conditions	1982 Permit to Install	VOC limit for chemical process	Emission group for chemical process
	1985 Permit to Install	VOC limit for 2 new reactors	Emission group for two reactors
Proposed changes	Renewable Operating Permit	VOC limit for chemical process including reactors	1 emission group for chemical process and reactors

Example 2:

A facility was issued a Permit to Install to modify a paint line as necessary to comply with Rule 621. The resulting permit includes a pound per gallon limit consistent with the rule, as well as pound per hour and ton per year limits. The company has another permit for a different paint line which is also subject to Rule 621. This permit also includes pounds per gallon, pounds per hour, and ton per year limits. Since the applicable requirement on which these limits were based does not provide for cross-line averaging (i.e. “bubbling”), a request to combine these two processes together to determine compliance with the pound per gallon limit would violate the applicable requirement and could not be approved. However, since Rule 621 does not contain pounds per hour or ton per year limits, the facility could request to combine the pounds per hour and ton per year limits together at the flexible group level, giving it the flexibility to use either line up to the total allowed emission, provided line met the pound per gallon limit in Rule 621 on its own. The pound per gallon limit would be assigned at the emission unit level. Table 1-3 summarizes this example.

Table 1-3: Example 2 - Summary of Redefining Processes/Equivalent Requirements

Current vs. Proposed	Pound per Hour Limit	Pound per Gallon Limit	Ton per Year Limit
Current conditions	Pound per hour limit for line 1	Pound per gallon limit for line 1	Ton per year limit for line 1
	Pound per hour limit for line 2	Pound per gallon limit for line 2	Ton per year limit for line 2
Proposed changes	Pound per hour limit for both lines	No changes	Ton per year limit for both lines

- Emission Caps Independent of Other Applicable Requirements**

A facility is allowed to have an emissions cap in its ROP that is independent of other applicable requirements. The usefulness of this is to allow a facility that meets one of the major source definitions to include conditions in its renewable operating permit to avoid other major source

definitions. The following two examples clarify why a facility might want an emissions cap independent of other applicable requirements.

Example 1:

A facility is major because its potential to emit carbon monoxide is greater than 300 tons per year. It is not possible for the facility to limit its carbon monoxide potential to emit to less than 100 tons per year (the major source threshold). However, the facility would like to become a minor source for Prevention of Significant Deterioration (PSD) purposes (the PSD major source threshold is 250 tons per year). The facility could propose a plant-wide carbon monoxide limit of less than 250 tons per year.

Example 2:

A facility is major for nitrogen oxides, but would like to clarify in its ROP that it is not a major source of hazardous air pollutants (HAP). The ROP could include a plant-wide limit on HAPs which requires that the facility does not exceed 10 tons per year of any one HAP nor a total of 25 tons per year of all HAPs combined.

RULES GOVERNING RENEWABLE OPERATING PERMITS

Before completing the ROP application, it is important to understand the rules that govern the program. The requirements for the ROP Program in Michigan are found in Rules 210-218 of the Michigan Air Pollution Control Rules. A summary of each of these rules is provided below. All of these rules can be found in Appendix C of this workbook.

Rule 210 Renewable Operating Permits:

Michigan's Rule 210 outlines the ROP Program. It describes how an application shield allows a facility to operate while its application is being processed, what constitutes an administratively complete application, how to protect the application shield by providing additional information in a timely manner, the application submittal schedule, the schedule for the AQD to take final action on applications, and how enforcement actions can be taken when a facility does not operate in compliance. According to Rule 210(2)(b), any new or corrected information must be promptly submitted by the facility to the AQD.

Rule 211 Renewable Operating Permit Applicability

Michigan's Rule 211 explains that major sources and some non-major sources are subject to the ROP Program. Major source is defined using the concept of potential to emit. Residential wood heaters and asbestos demolition and renovation are exempt from this permitting program.

Rule 212 Insignificant Activities and Exempt Process and Process Equipment at Major Sources

Rule 212 lists insignificant activities and emission units that do not have to be included in an ROP application and describes emission units that must only be listed in the application. This rule also explains how to use the application to modify current permit conditions and describes the requirements for reporting emissions.

Rule 213 Content of a Renewable Operating Permit

Michigan's Rule 213 describes the content of an ROP. It explains the general provisions; the emission limits; and the testing, monitoring, recordkeeping, reporting, and compliance evaluation conditions that must be included to establish an enforceable document. Rule 213 also discusses compliance reporting, designating requirements that are only enforceable by the state, permit shields, alternate operating scenarios, and temporary sources.

Rule 214 Approval of a Renewable Operating Permit

Michigan's Rule 214 explains how an ROP is approved. First a draft permit is prepared and the applicant is allowed to review and comment on the draft. Public notice is given to affected states and the draft goes through a public comment period. Following the public comment period, the U.S. Environmental Protection Agency (EPA) is allowed to comment on a proposed Renewable Operating Permit, then a final decision to issue or deny the permit is made by the AQD.

Rule 215 Operational Flexibility under a Renewable Operating Permit

Michigan's Rule 215 has provisions for making changes that are consistent with and not constrained by the permit and for making changes that are not specifically addressed or prohibited by the permit. The changes allowed by this rule do not qualify for the permit shield. Types of changes made to an ROP under Rule 215 include operational flexibility changes, changes involving emissions trading, changes considered insignificant, and off-permit changes (i.e., an approved Permit to Install was obtained prior to making the change).

Rule 216 Modifications to Renewable Operating Permits

Michigan's Rule 216 explains the ROP modification process. The four different types of modifications include administrative permit amendments, minor permit modifications, significant modifications, and state-only modifications.

Rule 217 Renewals and Reopenings of Renewable Operating Permits

Michigan's Rule 217 explains how ROPs are renewed or reopened. The procedure used to initially issue the permit is used to renew an ROP. ROPs are reopened by the AQD to incorporate new requirements, to include omitted information, to correct inaccurate statements, or to revise the permit so that compliance is ensured.

Rule 218 General Renewable Operating Permits

Michigan's Rule 218 explains how general ROPs can be established for a source category. General ROPs must comply with all of the requirements applicable to other ROPs and must identify criteria to establish who may qualify for the general permit.

Operational Memoranda

In the implementation of the ROP Program, several issues surfaced that required further clarification from the AQD. Therefore, the AQD developed operational memoranda to provide guidance on these issues. Table 1-3 lists the subject of each operational memorandum. All of these memoranda can be accessed on the Internet at: www.michigan.gov/deq (click on "Air," then "Laws, Rules, & Memorandums").

Table 1-3. Operational Memoranda Topics

OP MEMO #	TOPICS
1	Modification of a Permit to Install or an equivalent emission limit in a Renewable Operating Permit
2	Incorporation of Permits to Install into operating permits under Rule 216
3	Procedure for limiting potential to emit below major source thresholds under the Renewable Operating Permit Program
4	Mechanisms for limiting the applicability of Michigan's Renewable Operating Permit Program
5	Procedures for correlating Michigan's and EPA's definition of VOC
6	Procedure for determining emission units
7	Procedure for implementation of the Renewable Operating Program application shield
8	Applicability of the operating permit and emission fee programs to sources of particulate matter
9	Treatment of rules identified for repeal in Renewable Operating Permit applications
10	Procedures for handling of confidential materials and freedom of information requests for confidential materials
11	Stationary source determinations
12	Incorporating changes to an application for a renewable operating permit
13	Criteria pollutant threshold levels for the emissions inventory
14	Use of visible emissions less than 20% opacity in permits
15	Procedure for processing permit applications subject to federal Clean Air Act Section 112(G)
16	Procedure for evaluating plantwide applicability limits
17	Procedure for processing Clean Corporate Citizen permit applications

ROP RENEWALS

Each ROP is issued for a fixed term of five years, then it must be renewed. According to Rule 210(7) of the Michigan Air Pollution Control Rules, an administratively complete application for renewal of an ROP must be received by the AQD not more than **18 months**, but not less than **six months**, before the expiration date of the current ROP. This means that you have a 12-month window in which you may submit your ROP application (Figure 1-1). **DO NOT** wait until the deadline to submit your renewal application. Take into consideration that your application could be returned to you if it is not administratively complete.

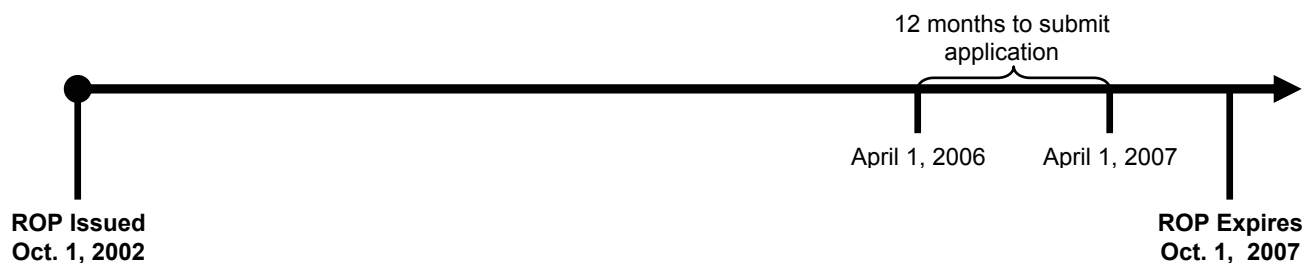


Figure 1-1: Example ROP Renewal Timeline

ADMINISTRATIVE COMPLETENESS

The ROP application forms are designed to collect all of the information necessary for an administratively complete initial, modification, or renewal application as required by Section 5506 of Act 451. The date of receipt of the application submittal pursuant to Rule 210 is the day the application is received at the appropriate AQD district office. The AQD will determine administrative completeness for an ROP application using manual and electronic screening. If the ROP application is submitted in paper form only (i.e., PASS-ROP is not used), the AQD will make the administrative completeness determination within 60 days. If Permit Application Submittal System (PASS) software is used to electronically submit the ROP application, the AQD will make the administrative completeness determination within 15 days.

CERTIFICATIONS

The Responsible Official, as defined in Rule 118(j), must certify that based on information and belief formed after reasonable inquiry, the statements and information in all submittals are true, accurate, and complete (see Appendix C for Rule 118(j)). In accordance with the Clean Air Act, federal Credible Evidence Rule (62 FR 8314, February 24, 1997) and United States Environmental Protection Agency's (U.S. EPA) White Paper Number 2 (Lydia Wegman to Regional Air Directors, March 5, 1996), the application must include information on all observed, documented, or known instances of noncompliance. Rule 210(2) specifies that a certification is required when submitting an initial or renewal application, supplemental information, as well as for applications to amend or modify an issued ROP. Knowingly certifying wrong information is grounds for enforcement action. The Certification form (C-001) is used to identify the Responsible Official(s) and certify submittals (see Chapter 12).

APPLICATION SHIELD

Rule 210(1) defines an application shield as “the ability to operate the process and process equipment at a stationary source while a timely and administratively complete application is being reviewed and acted upon by the department.” An application is considered timely pursuant to Rule 210(4)-(7) and considered administratively complete pursuant to Rule 210(2). Failure to provide a timely response to information requests may result in loss of the application shield. Loss of the application shield is grounds for enforcement action pursuant to Rule 210(1) (see Appendix C for Rule 210).

ROP APPLICATION FORMS DESCRIPTION

The ROP application package as well as the PASS-ROP software consists of 14 different forms, which are used to collect information about a source. The forms must be used for all ROP application actions including initial applications, notifications of change, amendments, modifications, and renewals. The detailed instructions for each form are provided with the form to which they apply. Following is a brief description of each form.

Source (S-001): This form is used to enter source information such as the company name, location, and owner information. Required attachments (e.g., building layouts, site plans, etc.) must be included in the application using AI-001.

Contact/Responsible Official (S-002): This form is used for information concerning the contact and responsible official for the application and permit. If there is more than one contact or responsible

official for the source, or a contact or responsible official for each section, information must be completed for each contact or responsible official.

Certification (C-001): This form is used as a certification for all ROP application actions and notifications of change, amendments, or modifications to an ROP.

Exempt Emission Unit (EU-001): This form is used to identify exempt equipment pursuant to Rule 212(4). Rule 212(4) requires the source to provide a description of the exempt emission unit, including control equipment. See EU-001 instructions for additional details regarding exempt emission units with existing permits.

Emission Units For Rules 281(h), 285(r)(iv), 287(c) or 290 (EU-002): This form is used to identify emission units, describe all process equipment, and list control devices for emission units that meet the requirements of the listed rules.

Emission Unit (EU-003): This form is used to identify emission units, describe all process equipment, and list control devices and stacks with applicable requirements that belong to the emission unit.

Flexible Group (FG-001): This form is used to identify groups of emission units with common or identical applicable requirements.

Applicable Requirements (AR-001 and AR-002): These forms are used to identify applicable requirements (see Rule 101(o)) and requirements established in an ROP pursuant to Rule 213.

Monitoring Systems (MS-001, MS-002, and MS-003): These forms are used to identify proposed monitoring and recordkeeping information, testing and sampling information, and reporting information that is used to show compliance with each applicable requirement that requires a compliance demonstration. Some method of compliance demonstration must be identified for every emission limit, material limit, and operational restriction. Therefore, if there is no existing monitoring system, the source must propose a compliance demonstration method.

Section Identification (SI-001): This form is used for section information if the permit is sectioned. This form provides identification for each section of a sectioned permit, and lists all of the emission units, flexible groups, contact(s), and responsible official(s) associated with the section.

Additional Information (AI-001): This form is used to submit information or attachments to supplement the specific information requested in the application including confidential information, compliance plans, progress reports, and process flow diagrams. A narrative description and any other information that the applicant feels necessary to supplement the specific information requested may also be included. Additional information is not limited to text and may include calculations, design parameters tables, or small diagrams. Attachments such as drawings, graphs, manufacturer's literature, demonstrations, or protocols may also be necessary to supplement or clarify the information on a form. Any attachments specifically required for an individual form are identified on the form, or in the instructions for that form.

FORM FLOW AND RELATIONSHIPS

In order to successfully navigate through the ROP application forms and submit an administratively complete application, it is necessary to understand how the forms are linked together in the PASS-ROP software. By electronically linking the forms together, the PASS-ROP software is able to automatically generate required forms and pre-fill fields using data entered on previous forms. Chapters pertaining to form completion (i.e. Chapters 4 to 11) will contain a form relationship discussion. This brief discussion identifies which forms are linked to the form currently displayed.

The Form Flow Diagram (Figure 1-2) was designed to show the connection between the different form types. It also represents a recommended form flow for completing the application. The ROP Program is based on applicable requirements; therefore, all of the forms may not be required for a complete application.

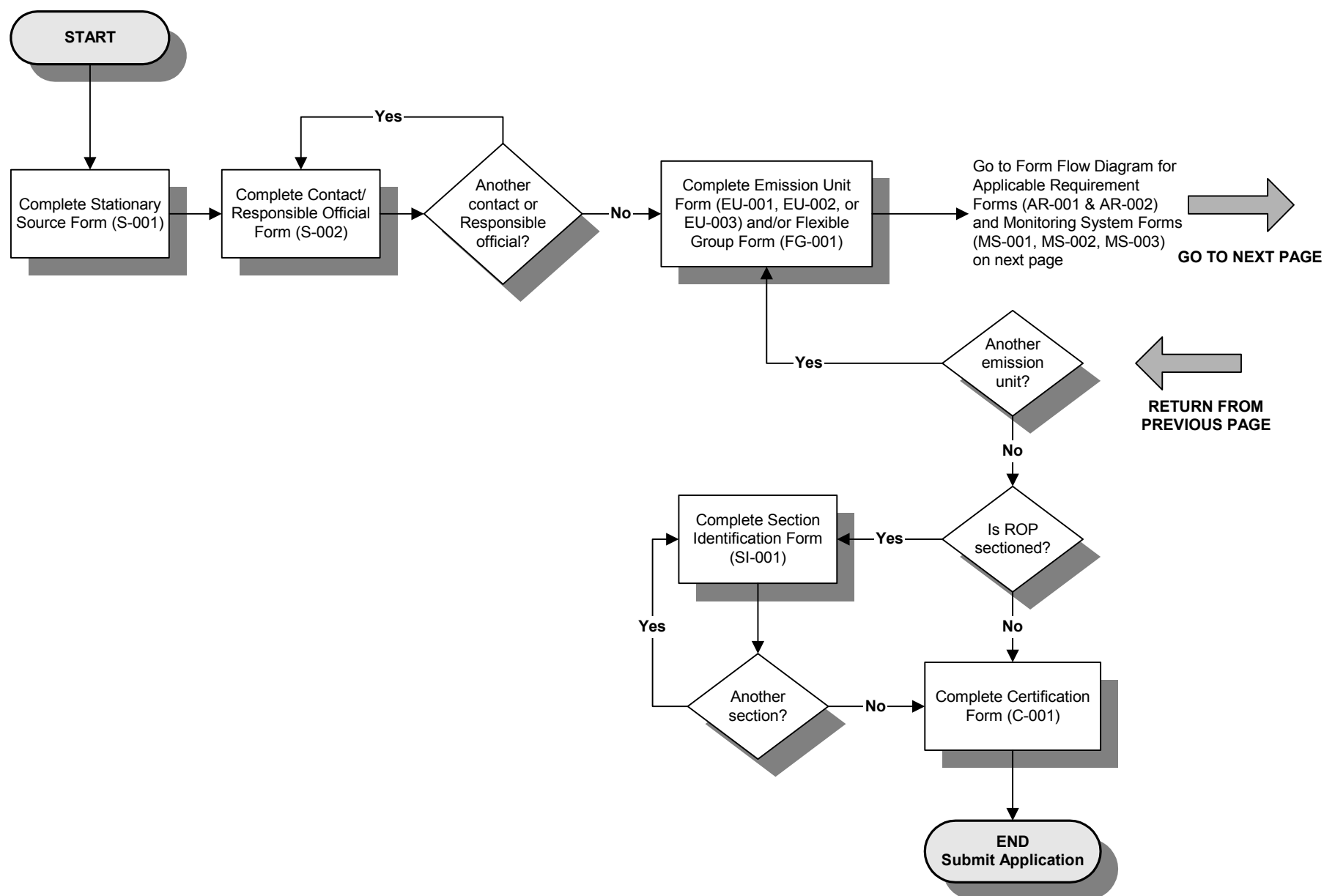
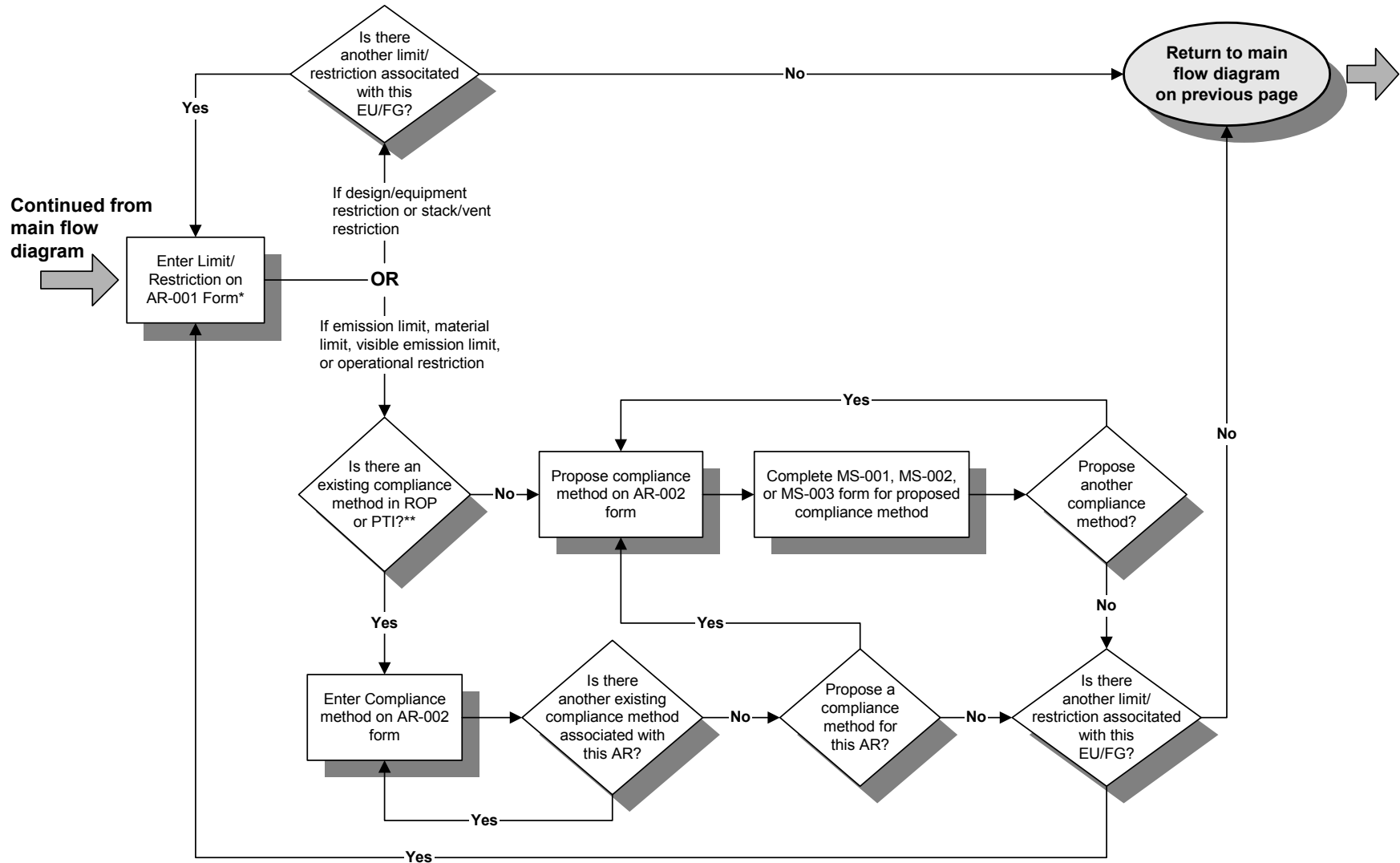


Figure 1-2: Form Flow Diagram

*** Limits/Restrictions Include:**

- ♦ emission limits
- ♦ material limits
- ♦ visible emission limits
- ♦ operational restrictions
- ♦ design/equipment restrictions
- ♦ stack/vent restrictions

**** Compliance methods include:**

- ♦ monitoring/recordkeeping
- ♦ testing/sampling
- ♦ reporting
- ♦ records maintenance

AR = Applicable Requirement

EU = Emission Unit

FG = Flexible Group

PTI = Permit to Install

ROP = Renewable Operating Permit

SECTIONED ROPs

An ROP application contains one section by default. It is not necessary to section the permit beyond this default. The sectioning option is provided to allow a source to further divide the ROP application by physical locations or different management organizations (i.e. owners) within the stationary source.

Multiple sections may be created for a stationary source with multiple physical locations or multiple owners. Sections should not be created for separating emission units, flexible groups, or buildings within a stationary source. If your existing ROP is divided into sections or if you wish to divide your ROP into sections you will need to complete the Section Identification Form (SI-001) (see Chapter 10).

The following examples should clarify the sectioning concept.

- A chemical plant has 100 different buildings. Production is divided into three separate areas: pharmaceuticals, adhesives, and pesticides. These three areas contain 400 different emission unit/process groups. The source could create three sections, one for each production area.
- An automotive assembly plant and a powerhouse have 700 emission units. The source could create two sections, one for the assembly plant and one for the powerhouse.
- A gas processing plant and a gas sweetening plant located on adjacent properties with different owners. The source could create two sections, one for the gas processing plant and one for the gas sweetening plant.
- A landfill and a landfill gas processing plant located on adjacent properties with different owners. The source could create two sections, one for the landfill and one for the landfill gas processing plant.

ROP PROGRAM RESOURCES

In addition to this workbook, there are several other resources you may wish to refer to for guidance in completing and submitting your ROP application. They include:

The Clean Air Assistance Program

The Clean Air Assistance Program (CAAP) is located within the Environmental Science and Services Division of the Michigan Department of Environmental Quality. It helps small and medium-sized businesses understand their obligations under state and federal air quality regulations and identify methods of compliance with those requirements via telephone consultations, guidance publications, and training workshops. The CAAP can help with your ROP related questions as well and can be contacted by calling the Environmental Assistance Center at (800) 662-9278 or on the Internet at www.michigan.gov/deqair (select on "Clean Air Assistance").

DEQ, AQD Michigan Air Permit Web Site

The Michigan Air Permit web site provides information about the Permit to Install Program, ROP Program, MACT determinations, acid rain permits, and other links of interest. At this web site you can view ROP Program support documents and application forms, a list of subject sources, public notice documents, as well as a list of draft, proposed, and issued ROPs. The Michigan Air Permit web site can be accessed at www.michigan.gov/deqair (select "Permits").

PASS-ROP Software Users Guide

The PASS-ROP *Software Users Guide* provides instructions on using the PASS-ROP software and is included with the software under the Help Menu.

Life After ROP – Renewable Operating Permit Reporting and Revisions Workbook

This document is designed to help facilities subject to Michigan's ROP Program comply with responsibilities after an ROP is issued. The workbook serves as a practical guide to complying with deviation reporting and compliance certification requirements contained in all ROPs, as well as the permit revision requirements associated with making changes at a source. You can access the workbook on the Internet via the Clean Air Assistance Program Home Page (see above) or by contacting the Environmental Assistance Center at (800) 662-9278.

